Appl. No. 09/419,350
Amdt. dated: January 5, 2004
Reply to Office Action of October 3, 2003

Docket No. CISCO-1315
(032590-000076)

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended)   A high reliability computer system, said system comprising:

a first processing engine (PE);

a first memory accessible by said first PE, containing initialization information for said first PE;

a second PE;

a second memory accessible by said second PE, containing initialization information for said second PE;

a third memory accessible by said first PE, said third memory having a location for storing an enable password for said first PE;

a fourth memory accessible by said second PE;

circuitry for <u>automatically</u> switching control of said system from said first PE to said second PE upon detection of a failure of said first PE; and

a password passer writing said enable password of said first PE to the fourth memory accessible by said second PE.

2. (Original)   A high reliability computer system according to claim 1, wherein said password passer writes said enable password of said first PE to said fourth memory at the initialization of the system.

3. (Original)   A high reliability computer system according to claim 1, wherein said password passer writes said enable password of said first PE to said fourth memory every time said enable password of said first PE is changed.

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4. (Original)   A high reliability computer system according to claim 1, wherein said password passer writes said enable password of said first PE to said fourth memory in response to a command from said second PE.

5. (Original)   A high reliability computer system according to claim 1, wherein password passer reads said enable password of said first PE from said first memory and writes said enable password to said fourth memory.

6. (Currently Amended)   A high reliability computer system, said system comprising:

a first PE;

a first memory accessible by said first PE, containing initialization information for said first PE;

a second PE;

a second memory accessible by said second PE, containing initialization information for said second PE;

circuitry for <u>automatically</u> switching control of said system from said first PE to said second PE upon detection of a failure of said first PE;

a password memory accessible by said first and second PEs, having a location for storing an enable password for the system; and

a password keeper for maintaining said enable password in said password memory for said first and second PEs.

7. (Original)   A high reliability computer system according to claim 6, wherein said password keeper reads said enable password from said first memory and writes said enable password to said password memory at the initialization of the system.

8. (Original)   A high reliability computer system according to claim 6, wherein said initialization information for said first PE includes instructions for said password keeper to write said enable password to said password memory.

9. (Original)   A high reliability computer system according to claim 6, wherein said initialization information for said second PE includes instructions for said password keeper to write said enable password to said password memory.

10. (Original) A high reliability computer system according to claim 6, wherein said password keeper writes said enable password to said password memory every time said enable password is changed.

11. (Original) A high reliability computer system according to claim 6, wherein said password keeper passes said enable password maintained in said password memory to either one of said first and second PEs in response to a request therefrom.

12. (Currently Amended)   A system for providing password protection for a high reliability computer system, on a data communications network including a password server having a database for maintaining an enable password for said high reliability computer system, said password server being coupled via an information bus to said high reliability computer system, said system comprising:

 a first PE;

 a first memory accessible by said first PE, containing initialization information for said first PE;

 a second PE;

 a second memory accessible by said second PE, containing initialization information for said second PE;

 circuitry for <u>automatically</u> switching control of said system from said first PE to said second PE upon detection of a failure of said first PE; and

 an interface capable of communicating with the password server over the information bus, said interface obtaining an enable password from the password server in response to a request from either one of said first and second PEs.

13. (Original) A network system according to claim 12, wherein said second PE authenticates incoming users by requesting authentication from said password server.

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14. (Original) A network system according to claim 12, wherein said first PE obtains said enable password from said password server via said interface at the initialization of the system.

15. (Original) A network system according to claim 12, wherein said initialization information for said first PE includes instructions to access and obtain said enable password from said password server.

16. (Currently Amended)   A system for providing password protection for a high reliability computer system on a data communications network including a password server having a database for maintaining an enable password for said high reliability computer system, said password server being coupled via an information bus to said high reliability computer system, said system comprising:

    a first PE;

    a first memory accessible by said first PE, containing initialization information for said first PE;

    a first interface for said first PE, said first interface capable of communicating user authentication requests and responses with the password server over the information bus;

    a second PE;

    a second memory accessible by said second PE, containing initialization information for said second PE;

    a second interface for said second PE, said second interface capable of communicating user authentication requests and responses with the password server over the information bus; and

    circuitry for <u>automatically</u> switching control of said system from said first PE to said second PE upon detection of a failure of said first PE.

17. (Currently Amended) A method for operating a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory

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containing initialization information for said first PE and having a location for storing an enable password for said first PE, a second PE, and a second memory accessible by said second PE, said second memory containing initialization information for said second PE, said method comprising:

writing said enable password of said first PE to a third memory accessible by said second PE; and

automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE.

18. (Original) A method according to claim 17, wherein said writing of said enable password of said first PE to said third memory is performed at the initialization of the system.

19. (Original) A method according to claim 17, wherein said writing of said enable password of said first PE to said third memory is performed every time said enable password of said first PE is changed.

20. (Original) A method according to claim 17, wherein said writing of said enable password of said first PE to said third memory is performed in response to a command from said second PE.

21. (Currently Amended)   A method for operating a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, and a second memory accessible by said second PE, said second memory containing initialization information for said second PE, said method comprising:

providing a password memory accessible by said first and second PEs, having a location for storing an enable password;

maintaining said enable password for said first and second PEs in said password memory; and

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automatically switching control of said system from said first PE to said second
PE upon detection of a failure of said first PE.

22. (Original) A method according to claim 21, wherein said maintaining includes:

reading said enable password from said first memory and writing said enable
password to said password memory at the initialization of the system.

23. (Original) A method according to claim 21, wherein said maintaining includes:

writing said enable password to said password memory every time said enable
password is changed.

24. (Original) A method according to claim 21, wherein said maintaining includes:

writing said enable password to said password memory in response to a command
from said first PE.

25. (Original) A method according to claim 21, wherein said maintaining includes:

passing said enable password maintained in said password memory to either one
of said first and second PEs in response to a request therefrom.

26. (Currently Amended) A method for providing password protection for a high
reliability computer system, said system including a first PE, a first memory accessible
by said first PE, said first memory containing initialization information for said first PE, a
second PE, a second memory accessible by said second PE, said second memory
containing initialization information for said second PE, and circuitry for automatically
switching control of said system from said first PE to said second PE upon detection of a
failure of said first PE, said method comprising:

sending an enable password for the high reliability computer system for storage in
a database of a server coupled to the high reliability computer system via an information
bus;

providing an interface capable of communicating with the password server over
the information bus; and

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obtaining the enable password from the password server through the interface in response to a request from either one of the first and second PEs.

27. (Original) A method according to claim 26, further comprising authenticating incoming users by requesting authentication from the password server.

28. (Currently Amended)   A method for providing password protection for a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, a second memory accessible by said second PE, said second memory containing initialization information for said second PE, and circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, said method comprising:

sending an enable password for the high reliability computer system for storage in a database of a password server coupled to the high reliability computer system via an information bus;   .

communicating user authentication requests and responses with the password server over the information bus via a first interface for the first PE; and

communicating user authentication requests and responses with the password server over the information bus via a second interface for the second PE.

29. (Currently Amended)   A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for operating a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE and having a location for storing an enable password for said first PE, a second PE, and a second memory accessible by said second PE, said second memory containing initialization information for said second PE, said method steps comprising:

writing said enable password of said first PE to a third memory accessible by said second PE; and

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automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE.

30. (Original) A program storage device according to claim 29, wherein said method step of writing said enable password of said first PE to said third memory is performed at the initialization of the system.

31. (Original) A program storage device according to claim 29, wherein said method step of writing said enable password of said first PE to said third memory is performed every time said enable password of said first PE is changed.

32. (Original) A program storage device according to claim 29, wherein said method step of writing said enable password of said first PE to said third memory is performed in response to a command from said second PE.

33. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for operating a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, and a second memory accessible by said second PE, said second memory containing initialization information for said second PE, said method steps comprising:

    providing a password memory accessible by said first and second PEs, having a location for storing an enable password;

    maintaining said enable password for said first and second PEs in said password memory; and

    automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE.

34. (Original) A program storage device according to claim 33, wherein said method step of maintaining includes:

reading said enable password from said first memory and writing said enable password to said password memory at the initialization of the system.

35. (Original) A program storage device according to claim 33, wherein said method step of maintaining includes:

writing said enable password to said password memory every time said enable password is changed.

36. (Original) A program storage device according to claim 33, wherein said method step of maintaining includes:

writing said enable password to said password memory in response to a command from said first PE.

37. (Original) A program storage device according to claim 33, wherein said method step of maintaining includes:

passing said enable password maintained in said password memory to either one of said first and second PEs in response to a request therefrom.

38. (Currently Amended)   A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing password protection for a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, a second memory accessible by said second PE, said second memory containing initialization information for said second PE, and circuitry for <u>automatically</u> switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, said method steps comprising:

sending an enable password for the high reliability computer system for storage in a database of a password server coupled to the high reliability computer system via an information bus;

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providing an interface capable of communicating with the password server over the information bus; and

obtaining the enable password from the password server through the interface in response to a request from either one of the first and second PEs.

39. (Original) A program storage device according to claim 38, wherein said method steps further comprises authenticating incoming users by requesting authentication from the password server.

40. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for providing password protection for a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, a second memory accessible by said second PE, said second memory containing initialization information for said second PE, and circuitry for <u>automatically</u> switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, said method steps comprising:

sending an enable password for the high reliability computer system for storage in a database of an authentication, authorization and accounting (AAA) server coupled to the high reliability computer system via an information bus;

communicating user authentication requests and responses with the password server over the information bus via a first interface for the first PE; and

communicating user authentication requests and responses with the password server over the information bus via a second interface for the second PE.

41. (New) An apparatus for operating a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE and having a location for storing an enable password for said first PE, a second PE, and a second memory accessible by said

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second PE, said second memory containing initialization information for said second PE, said method comprising:

means for writing said enable password of said first PE to a third memory accessible by said second PE; and

means for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE.

42. (New)   An apparatus for operating a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, and a second memory accessible by said second PE, said second memory containing initialization information for said second PE, said method comprising:

means for providing said first and second PEs with access to an enable password;

means for maintaining said enable password for said first and second PEs; and

means for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE.

43. (New)   An apparatus for providing password protection for a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, a second memory accessible by said second PE, said second memory containing initialization information for said second PE, and circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, said method comprising:

means for sending an enable password for the high reliability computer system for storage in a database of a server coupled to the high reliability computer system via an information bus; and

means for communicating with the password server over the information bus and obtaining the enable password from the password server in response to a request from either one of the first and second PEs.

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44. (New)   An apparatus for providing password protection for a high reliability computer system, said system including a first PE, a first memory accessible by said first PE, said first memory containing initialization information for said first PE, a second PE, a second memory accessible by said second PE, said second memory containing initialization information for said second PE, and circuitry for automatically switching control of said system from said first PE to said second PE upon detection of a failure of said first PE, said method comprising:

means for sending an enable password for the high reliability computer system for storage in a database of a password server coupled to the high reliability computer system via an information bus;

means for communicating user authentication requests and responses with the password server over the information bus via a first interface for the first PE; and

means for communicating user authentication requests and responses with the password server over the information bus via a second interface for the second PE.